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FROM: Winston Hsu, PATENT AGENT, REG. NO. : 41,526

SERIAL NO.: 10/604,855

ATTORNEY DOCKET NO.: ADTP0091USA

SUBJECT: INFORMATION DISCLOSURE STATEMENT

TOTAL PAGES: 21 PAGES (INCLUDING COVER PAGE)

Winston Hsu 2004/05/11

ADTP0091USA0_D1_1

PTO/SB/97 (08-00)
Approved for use through 10/31/2002. OMB 0551-0031
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APPLICATION NUMBER: 10/604,855

PAPERS INCLUDED:

| | |
|--------------------------------------|----------|
| (1) Transmittal Form | 1 PAGE |
| (2) Fee Transmittal | 1 PAGE |
| (3) Information Disclosure Statement | 17 PAGES |

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PTO/SB/21 (08-03)

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| | | | |
|---|----------------------|------------------------|-------------|
| TRANSMITTAL FORM (to be used for all correspondence after initial filing) | Application Number | 10/604,855 | |
| | Filing Date | 08/21/2003 | |
| | First Named Inventor | Chien-Sheng Yang | |
| | Art Unit | 2856 | |
| | Examiner Name | | |
| Total Number of Pages in This Submission | 19 | Attorney Docket Number | ADTP00911SA |

| ENCLOSURES (Check all that apply) | | |
|--|---|---|
| <input checked="" type="checkbox"/> Fee Transmittal Form | <input type="checkbox"/> Drawing(s) | <input type="checkbox"/> After Allowance communication to Technology Center (TC) |
| <input type="checkbox"/> Fee Attached | <input type="checkbox"/> Licensing-related Papers | <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences |
| <input type="checkbox"/> Amendment/Reply | <input type="checkbox"/> Petition | <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) |
| <input type="checkbox"/> After Final | <input type="checkbox"/> Petition to Convert to a Provisional Application | <input type="checkbox"/> Proprietary Information |
| <input type="checkbox"/> Affidavits/declaration(s) | <input type="checkbox"/> Power of Attorney, Revocation | <input type="checkbox"/> Status Letter |
| <input type="checkbox"/> Extension of Time Request | <input type="checkbox"/> Change of Correspondence Address | <input type="checkbox"/> Other Enclosure(s) (please identify below): |
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| <input type="checkbox"/> Certified Copy of Priority Document(s) | <input type="checkbox"/> CD, Number of CD(s) _____ | |
| <input type="checkbox"/> Response to Missing Parts/Incomplete Application | Remarks | |
| <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | | |

| SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT | |
|--|-------------------------------|
| Firm or Individual name | Winston Hsu, Reg. No.: 41,526 |
| Signature | <i>Winston Hsu</i> |
| Date | 5/11/2004 |

| CERTIFICATE OF TRANSMISSION/MAILING | |
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| Typed or printed name | |
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PTO/SB/17 (10-03)

Approved for use through 07/31/2006. OMB 0651-0032
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**FEE TRANSMITTAL
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 0.00**Complete if Known**

| | |
|----------------------|------------------|
| Application Number | 10/604,855 |
| Filing Date | 08/21/2003 |
| First Named Inventor | Chien-Sheng Yang |
| Examiner Name | |
| Art Unit | 2856 |
| Attorney Docket No. | ADTP00911SA |

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☒ Deposit Account:

| | |
|------------------------|---|
| Deposit Account Number | 50-3105 |
| Deposit Account Name | North America Intellectual Property Corp. |

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below. ☒ Credit any overpayments☒ Charge any additional fee(s) or any underpayment of fee(s)☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.**FEE CALCULATION****1. BASIC FILING FEE**

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description | Fee Paid |
|----------------------------|----------------------------|------------------------|----------|
| 1001 770 | 2001 385 | Utility filing fee | |
| 1002 340 | 2002 170 | Design filing fee | |
| 1003 530 | 2003 265 | Plant filing fee | |
| 1004 770 | 2004 385 | Reissue filing fee | |
| 1005 160 | 2005 80 | Provisional filing fee | |

SUBTOTAL (1) (\$) 0.00**2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE**

| Total Claims | Extra Claims | Fee from below | Fee Paid |
|---------------------------|--------------|----------------|----------|
| Independent Claims | - 20** = | X | |
| Multiple Dependent Claims | - 3** = | X | |

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description |
|----------------------------|----------------------------|--|
| 1202 18 | 2202 9 | Claims in excess of 20 |
| 1201 86 | 2201 43 | Independent claims in excess of 3 |
| 1203 290 | 2203 145 | Multiple dependent claim, if not paid |
| 1204 86 | 2204 43 | ** Reissue independent claims over original patent |
| 1205 18 | 2205 9 | ** Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2) (\$) 0.00

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

Large Entity Small Entity

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description | Fee Paid |
|----------------------------|----------------------------|--|----------|
| 1051 130 | 2051 65 | Surcharge - late filing fee or oath | |
| 1052 50 | 2052 25 | Surcharge - late provisional filing fee or cover sheet | |
| 1053 130 | 1053 130 | Non-English specification | |
| 1812 2,520 | 1812 2,520 | For filing a request for ex parte reexamination | |
| 1804 920* | 1804 920* | Requesting publication of SIR prior to Examiner action | |
| 1805 1,840* | 1805 1,840* | Requesting publication of SIR after Examiner action | |
| 1251 110 | 2251 55 | Extension for reply within first month | |
| 1252 420 | 2252 210 | Extension for reply within second month | |
| 1253 950 | 2253 475 | Extension for reply within third month | |
| 1254 1,480 | 2254 740 | Extension for reply within fourth month | |
| 1255 2,010 | 2255 1,005 | Extension for reply within fifth month | |
| 1401 330 | 2401 165 | Notice of Appeal | |
| 1402 330 | 2402 165 | Filing a brief in support of an appeal | |
| 1403 280 | 2403 145 | Request for oral hearing | |
| 1451 1,510 | 1451 1,510 | Petition to institute a public use proceeding | |
| 1452 110 | 2452 55 | Petition to revive - unavoidable | |
| 1453 1,330 | 2453 665 | Petition to revive - unintentional | |
| 1501 1,330 | 2501 665 | Utility issue fee (or reissue) | |
| 1502 480 | 2502 240 | Design issue fee | |
| 1503 640 | 2503 320 | Plant issue fee | |
| 1460 130 | 1460 130 | Petitions to the Commissioner | |
| 1807 50 | 1807 50 | Processing fee under 37 CFR 1.17(q) | |
| 1806 180 | 1806 180 | Submission of Information Disclosure Stmt | |
| 8021 40 | 8021 40 | Recording each patent assignment per property (times number of properties) | |
| 1809 770 | 2809 385 | Filing a submission after final rejection (37 CFR 1.129(a)) | |
| 1810 770 | 2810 385 | For each additional invention to be examined (37 CFR 1.129(b)) | |
| 1801 770 | 2801 385 | Request for Continued Examination (RCE) | |
| 1802 900 | 1802 900 | Request for expedited examination of a design application | |

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 0.00**SUBMITTED BY**

| | | | | | |
|-------------------|--------------------|-----------------------------------|-----------|-----------|--------------|
| Name (Print/Type) | Winston Hsu | Registration No. (Attorney/Agent) | 41,526 | Telephone | 886289237350 |
| Signature | <i>Winston Hsu</i> | Date | 8/11/2004 | | |

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Cite No. /

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Applicant: Chien-Sheng Yang

5 Filing Date: 08/21/2003

Art Unit: 2856

Application No.: 10/604,855

Docket

No.:

ADTP0091USA

MAY 11 2004
OFFICIAL

10 Title: CAPACITIVE ACCELERATION SENSOR

To: Commissioner for Patents

P.O. Box 1450

Alexandria VA 22313-1450

15

Subject: Information Disclosure Statement under 37
C.F.R. §1.56.

Dear Sir:

20

This is an Information Disclosure Statement in
accordance with the duty to disclose information
material to patentability under 37 C.F.R. §1.56.
Applicant wishes to make of record the document listed
25 on the accompanying form PT0/SB/08. It is respectfully
requested that the examiner initials the cited
reference on the form and that it be made of record
in the application and that a copy of the initialed
form be sent to the applicant with the next
30 communication from the examiner.

Since the IDS is filed before the mailing date of

a first Office action on the merits, consideration of the information disclosure statement is hereby requested according to 37 C.F.R. §1.97(b). The prior art patent contained in the information disclosure statement was cited in communications from the Taiwan Intellectual Property Office on Apr. 21, 2004. Applicant sincerely hopes that the examiner can consider the item contained in the information disclosure statement.

10

According to the requirement set forth in 37 C.F.R. §1.98 and M.P.E.P. 609 (8th edition, Aug.-2001), the applicant is submitting copies of the cited reference (Taiwan Patent publication No. 230,237, published Sep 11, 1994) and a concise explanation of the relevance in this application hereinafter.

TW Patent 230,237 discloses an acceleration sensor having a mass part fashioned at springs as micromechanical components in the silicon layer on a SOI substrate, and piezo-resistors for detecting an excursion of the mass part (Abstract). This reference has never disclosed structure of the present application, such as the non-single-crystal-silicon-based substrate, the polysilicon beam structure, the polysilicon supporter, the stationary electrode, the plate capacitor, or the thin film transistor. The reference patent is obviously different from the present application.

30

The disadvantages of using polysilicon material as an acceleration sensor is mentioned in the reference.

But the mentioned disadvantages are directed against the silicon micromechanical device disclosed in IEEE spectrum, Jul. 1990, page 29-35, and cannot be extended to all acceleration sensors using the polysilicon material.

Independent claims 1 and 11 of the present application are repeated below for reference:

- 10 1. A capacitive acceleration sensor comprising:
a non-single-crystal-silicon-based substrate;
a polysilicon beam structure having a movable
section, the movable section comprising a
movable electrode;
- 15 a polysilicon supporter positioned on the
non-single-crystal-silicon-based substrate
for fixing the beam structure and forming a
distance between the beam structure and the
non-single-crystal-silicon-based
- 20 substrate;
- a stationary electrode positioned on the
non-single-crystal-silicon-based substrate
and opposite to the movable section of the
beam structure, the stationary electrode and
- 25 the movable electrode constituting a plate
capacitor; and
- a thin film transistor (TFT) control circuit
positioned on the
non-single-crystal-silicon-based substrate
- 30 and electrically connected to the plate
capacitor.

11. A capacitive acceleration sensor comprising:
- an insulating substrate;
 - a cantilever beam structure positioned on the insulating substrate having a movable section, the movable section comprising a movable electrode;
 - a stationary electrode positioned on the insulating substrate and opposite to the movable section of the cantilever beam structure, the stationary electrode and the movable electrode constituting a plate capacitor; and
 - a control circuit positioned on the insulating substrate and electrically connected to the plate capacitor.

Since claims of the present application are substantially different from the prior art patent TW 230,237, a quick allowance of the present application is sincerely requested.

Respectfully Submitted,

25 Winston Hsu Date: 5/11/2004

Winston Hsu, Patent Agent No. 41,526

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U.S.A.

30 e-mail: winstonhsu@naipo.com.tw

(Please contact me by e-mail if you need a telephone communication and I will return your call promptly.)